

Rec'd PCT TO 06 JUN 2003
10/37672

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2003/001610

A. CLASSIFICATION OF SUBJECT MATTER												
Int. Cl. ⁷ : B65D 83/06, B65G 65/40, G01F 11/00												
According to International Patent Classification (IPC) or to both national classification and IPC												
B. FIELDS SEARCHED												
Minimum documentation searched (classification system followed by classification symbols)												
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched												
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI & keywords: dispense, deliver, convey, supply, feed, particulate, granular, hopper, reservoir, bin, container, meter, measure, filter, recycle, reuse, return and similar terms												
C. DOCUMENTS CONSIDERED TO BE RELEVANT												
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X	AU 61378/00 (753910) B1 (T.A.C.A. (AUSTRALIA) PTY LTD) 31 October 2002 Page 4, line 4 to Page 7, line 19 and figures	1 to 10										
X	EP 0763316 B1 (AMAZONEN-WERKE H. DREYER GMBH & CO KG) 29 November 2000 Claim 1	5,9										
A	EP 0752203 B1 (RABEWERK GMBH & CO) 13 September 2000 Claims 1 to 19											
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
Date of the actual completion of the international search 12 February 2004		Date of mailing of the international search report 23 FEB 2004										
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929		Authorized officer COLIN FITZGIBBON Telephone No : (02) 6283 2226										

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Patent Abstracts of Japan JP, 10-176942 A (ASAHI GLASS CO LTD) 30 June 1998 Abstract	

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See separate sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II Lack of Unity

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1 to 3 are directed to an improved method for the metered dispensation of a particulate welding material which comprises a) establishing a primary flow of such material through a first hopper and a second hopper in series; b) extracting from such primary flow through the second hopper a determined secondary flow of such material; and c) recycling such secondary flow to such primary flow in such a manner that a metered dispensation of such material is obtained, wherein the improvement comprises adjusting the primary flow through the first hopper in such a manner that a desired size range of particulate material is delivered. It is considered that adjusting the primary flow through the first hopper in such a manner that a desired size range of particulate material is delivered comprises a first "special technical feature".
2. Claims 5 to 8 are directed to an apparatus for the metered dispensation of a particulate welding material which comprises a) a first hopper having a first inlet means and a first outlet means; b) a second hopper in flow connection with the first hopper and having a second inlet means and a second outlet means; c) a take-off means in combination with the second hopper and adapted to remove a selected amount of particulate material from a flow of such material through the first and second hoppers; and d) recycling means adapted to return a desired amount of particulate material to the first hopper, wherein a restrictor means is inserted in the first outlet means to restrict the flow of particulate material to a predetermined extent. It is considered that restrictor means inserted in the first outlet means to restrict the flow of particulate material to a predetermined extent comprises a second "special technical feature".
3. Claim 9 is directed to an apparatus for the metered dispensation of a particulate welding material which comprises a) a first hopper having a first inlet means and a first outlet means; b) a second hopper in flow connection with the first hopper and having a second inlet means and a second outlet means; c) a take-off means in combination with the second hopper adapted to remove a selected amount of particulate welding material from a flow of such material through the first and second hoppers; and d) a reservoir of particulate welding material from the take-off means from which such material may be recycled at selected intervals into the first hopper. It is considered that the reservoir of particulate welding material from the take-off means from which such material may be recycled at selected intervals into the first hopper comprises a third "special technical feature".

These groups are not so linked as to form a single general inventive concept, that is, they do not have any common inventive features, which define a contribution over the prior art. The common concept linking together these groups of claims is a method or apparatus for metered dispensation of welding material comprising a first hopper, a second hopper and recycling the particulate flow into the first hopper. However this concept is not novel in the light of AU 61378/00 (753910) (T.A.C.A. (AUSTRALIA) PTY LTD). Therefore these claims lack unity a posteriori.

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Information on patent family members

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report			Patent Family Member				
AU	61378/00	NONE					
EP	0763316	DE	19538626	DE	19538628	EP	0763317
EP	0752203	EP	0642729				
JP	10-176942	NONE					
END OF ANNEX							